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1/22/04
103

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Armstrong et al.

Serial No.: 09/538,816

Confirmation No.: 7812

Filed: March 30, 2000

For: SYSTEM ENABLING USER
ACCESS TO SECONDARY
CONTENT ASSOCIATED
WITH A PRIMARY CONTENT
STREAM

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Dear Sir:

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§ Examiner: Demicco, Matthew, R.
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APPEAL BRIEF

Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2611 dated November, 2003, finally rejecting claims 1-15. Three (3) copies of this brief are submitted for use by the Board.

Real Party in Interest

The present application has been assigned to DIVA Systems Corporation of Redwood City, California.

Related Appeals and Interferences

Appellants assert that no other appeals or interferences are known to the Appellants, the Appellants' legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Claims 1-15 are pending in the application. Claims 1-16 were presented in the application as originally filed on March 30, 2000. Claims 1-15 stand rejected in view of several references as discussed below. The rejection of claims 1-15 based on the cited references is appealed. The pending claims are shown in the attached Appendix.

Status of Amendments

A first amendment was filed on May 28, 2003 in response to the Examiner's first non-final Office Action mailed on February 28, 2003 (paper no. 6). The first amendment amended claims 1, 2, 4, 6, 9, 10, and 12. The first amendment also included arguments directed at traversing the Examiner's 35 U.S.C. §102, §103 and §112 rejections.

The Examiner responded to Appellants' May 28, 2003 amendment in a Final Office Action dated August 14, 2003 (paper no. 8). In the Final Office Action, the Examiner did not find all of the Appellants' arguments persuasive, and maintained the 35 U.S.C. §103 rejections for the same references cited in the first non-final Office Action.

A response to the Final Office Action was filed, on October 13, 2003. The response included additional arguments directed at traversing the Examiner's 35 U.S.C. §103 rejections.

The Examiner responded to Appellants' October 13, 2003 amendment in a first Advisory Action dated November 3, 2003 (paper no. 10). In the first Advisory Action, the Examiner noted that claims 1-15 are pending, however the Appellants' arguments against the 35 U.S.C. §103 rejections are not persuasive.

Summary of Invention

The present invention overcomes the deficiencies and limitations of the prior art with a method and apparatus for adapting service levels in an information distribution system in response to an amount of bandwidth available within the information distribution system. An interactive information distribution system according to the present invention includes service provider equipment 120, a communications network 130, and subscriber equipment 140_n, where n is an integer greater than zero. Content, such as video and audio content (i.e., multimedia content), is provided from the service provider equipment to the subscriber equipment (i.e., set top terminals) for ultimate viewing and listening by the subscriber on a multimedia device such as a television set, personal computer, laptop, among others.

The information provider equipment provides content streams to the information consumer equipment in response to requests for the content streams. Information consumers may utilize a user input device such as a remote control device to effect a stop or pause command, to which the information provider equipment responsively halts the serving of the requested content stream. Upon halting the requested content stream, the information server equipment provides advertisement content in place of, or along with, still or moving imagery associated with the halted content stream.

The present invention is also described as providing advertisement content, advertising streams, secondary content and/or secondary streams. For purposes of the disclosure, all of these terms are intended to denote a secondary or non-primary content stream. A primary content stream comprises a content stream requested by a subscriber. The secondary content stream may comprise advertising, instructional videos, help screens (e.g., context sensitive help and the like), information pertaining to actors, locations, items, goods and/or services depicted in a scene within the primary content and similar information. The secondary content may comprise still or moving imagery, audio or non-audio information, text files, graphics files or any combination thereof. Broadly speaking, secondary content simply comprises an information bearing file (see Appellants' specification, page 4, lines 3-25).

FIG. 1 depicts a high-level block diagram of an interactive information distribution system including the invention. Specifically, a cable system head end 120 interacts with a plurality of subscriber equipment 140₁ through 140_n via a forward channel FC and a back channel BC. The forward channel FC and back channel BC are implemented using a distribution network 130. The cable system head end receives subscriber requests for audio-visual programs by the back channel BC and responsively provides the requested audio-visual programs to the requesting subscriber via the forward channel FC. The cable system head end 120 also receives control commands from the subscriber equipment 140 via the back channel BC. Such control commands include video cassette recorder (VCR)-like commands such as STOP, PAUSE, FAST FORWARD, REWIND, FAST PLAY and the like.

In response to a received STOP or PAUSE command, the cable system head end terminates the streaming of the respective requested content stream to the subscriber equipment. The subscriber equipment may implement a "freezeframe" function such that a presentation device associated with the subscriber equipment displays still imagery associated with the last video frame received. In response to a FAST FORWARD or REWIND command, the cable system head end is selected and FAST FORWARD or REWIND content stream associated with the normal play content stream provided to the subscriber. The selected FAST FORWARD or REWIND content stream is then provided to the requesting subscriber in place of the normal play content stream, thereby implementing the FAST FORWARD or REWIND function. The above FF/REW methods are provided for illustrative purposes only (see Appellants' specification, page 4, line 26 to page 5, line 23).

The subscriber equipment 140 comprises a set-top box (STB) 142, a presentation device 144 and a user input device such as a remote control device 146. The set-top box 142 receives content streams and control information from the cable system head end 120 via the forward channel FC. The set-top box transmits user commands and other control information to the cable system head end 120 via the back channel BC. The set-top box 142 receives user commands and other user interaction via the user input device 146. The set-top box 142 provides audio and video streams suitable for use by the presentation device 144, such as a television system.

The cable system head end 120 comprises a video server 122, a head end controller 124, a transport processor 126 and an advertisement manager 128. The head end 120 optionally includes a demographic data base 125 cooperating with one or both of the head end controller 124 and advertising manager 128 (see Appellants' specification, page 5, line 24 to page 6, line 6).

The video server 122 comprises mass storage devices and other devices suitable for storing content streams. Content streams comprise, illustratively, compressed video streams and associated audio streams representing movies, television programs, sporting events advertisement and other "content." In addition, the video server 122 stores advertisement data associated with the respective content streams. The advertisement data may be stored as part of the content stream or as a separate data stream.

The advertisement manager 128 is depicted as a distinct functional element within the server equipment 120. However, it will be appreciated by those skilled in the art that the functions performed by the advertisement manager 128 may be incorporated into one or more other functional elements within the server equipment 120, such as the head-end controller 124 or the video server 122. As such, the following description of the advertisement manager 128 are equally applicable to embodiments of the invention in which the advertisement manager functions are incorporated into other functional elements within the server equipment 120.

The advertisement manager 128 comprises three primary functions; namely, a web portal function, a movie description file data base function and an advertisement data base function. The web portal function comprises the functionality necessary to retrieve, from the internet or other network, advertisement content streams, web pages, streaming media or other information available from the internet or other computer network. The retrieved advertisement information is provided directly to users, provided to the video server 122 or stored by the advertisement manager 128 for future use (see Appellants' specification, page 6, lines 7-31).

The movie descriptor file data base comprises a data base of the movie descriptor files associated with each of the content streams available to users via the video server 230. Specifically, a movie descriptor file comprises a file that delineates a

content stream, such as a movie, according to scene changes or other parameters such that intra-scene content may be associated with corresponding advertisement information or content. For example, in one embodiment of the invention it is desirable to provide an advertisement stream or other advertisement content to a user based upon the stop or pause point of a content stream being provided to the user. The movie descriptor file data base comprises a data base in which a content stream such as a movie is divided into a plurality of (typically) non-uniform temporal portions where each temporal portion of scene has associated with it advertisement information. The advertisement information associated with each temporal portion or scene of a content stream is stored within the advertisement data base of the advertisement manager. By knowing the stop or pause point, the movie descriptor file may be used to determine which scene or temporal portion includes the stop or pause point. In this manner, the correct advertisement information may be determined.

The advertisement data base function comprises a data base in which advertisement information is stored. The advertisement information may be replenished and/or augmented or updated via the web portal directly from an advertiser's web site. In the case of advertisement information comprising advertisement content streams, such advertisement content streams may be stored on the video server 122. In this case, the advertisement data base function provides pointers or other addressing indicia from which the location of an advertisement stream to be provided to a user may be determined.

The advertisement data includes generalized advertisement information, advertisement information of goods and/or services presented in the content streams and the like. The advertisement content or data may be associated with content streams on a scene-by-scene basis such that goods and/or services included within each scene of a content stream (e.g., furniture, clothing, automobiles, food and the like presented within a scene of a movie) may be identified separately in the advertisement data stream. As previously discussed with respect to the movie descriptor file data base function and the advertisement data base function of the advertisement manager 128, the advertisements provided to a user are organized, for example, in a manner reflecting the use of the advertised goods and/or services within a scene or temporal

portion of a content stream such as a movie. It will also be appreciated that each user within the interactive information distribution system 100 of FIG. 1 may be associated with demographic data that may be used to define appropriate advertisement content to be provided to the user.

Thus, in one embodiment of the invention, rather than providing advertisement content to a user based upon the stop or pause location within a content stream, the provided advertisement content comprises demographically appropriate advertisement content, regardless of the relationship to the advertised goods and/or services to a content stream being viewed by the user. In still another embodiment of the invention, both demographic information and content-related information are used to determine the secondary content provided to the subscriber in response to a stop or pause command (see Appellants' specification, page 7, line 1 to page 9, line 5).

A user receiving a content stream, including associated advertisement data streams, may stop or pause and receive content stream. The set-top box 142, upon receiving the STOP or PAUSE command, causes the present frame to be "frozen" and decimated such that the frozen frame occupies only a portion of the display area of the presentation device. The set-top box 142 then extracts advertisement information associated with the presently displayed scene. The advertisement information presented on the display screen and a user operating the user input device 146 may select particular advertisements for subsequent presentation. In the case of a user selecting a particular advertisement for a presentation, a selection command is promulgated via the back channel to the cable system head end 120. The cable system head end 120 responsively retrieves the selected advertisement stream, web page or other information and provides that information to the requesting subscriber equipment via the forward channel FC for presentation to the requesting user.

The advertisement information may be included within the content stream, provided as a contemporaneous auxiliary stream, or provided by the server in response to the stop/pause command. The server may use the present scene context or the demographic data associated with the user to determine a specific advertisement information to provide.

In response to a user request for a particular content file, the head end controller 124 causes the requested content file to be streamed to the transport processor 126 from the video server 122. Additionally, the head end controller 124 causes advertisement data associated with the requested content file to be streamed to the transport processor 126 from the video server 122 or the advertisement manager 128. The advertisement data comprises selectable objects that are displayed to a user upon the user interrupting the presentation of the content stream (e.g., pausing or stopping the presentation). The advertisement data may be carried as a separate data stream with its own program stream or within a transport stream including the content stream (i.e., a data stream having a unique packet identifier or PID) (see Appellants' specification, page 9, line 10 to page 10, line 28).

FIG. 2 depicts an interaction diagram useful in understanding the present invention. Specifically, FIG. 2 depicts an interaction diagram depicting interactions between various entities forming a system that utilizes the present invention. The system is divided into information provider equipment and information subscriber or user equipment.

The information provider equipment depicted in FIG. 2 comprises a advertisement manager 210, illustratively a computer accessing information via the internet, a head end controller 220, a video server 230, and a digital link or transport processor 240. It should be noted that the head end controller 220, video server 230, transport processor 240 and advertisement manager 210 depicted in FIG. 2 function in substantially the same manner as the respective head end controller 124, video server 122, transport processor 126 and advertisement manager 128 depicted in FIG. 1. As such, differences between the various descriptions of the functional components are intended to address alternative embodiments of the invention.

The advertisement manager 210 comprises, illustratively, a computing device adapted to receive information via a network such as the internet and to disseminate the received information to either the head end controller 220 or the transport processor 240. The head end controller (HEC) 220 coordinates all of the information provider activities via control messages that are propagated throughout the system. The video server 230 stores content streams and other information streams that will be provided to

a set top box associated with a user requesting the stored stream. The content streams comprise, illustratively, movies, music videos, television programs, video/audio advertisements and other content. The video server 230 operates in an interactive manner with a user requesting a content stream such that full VCR-like functionality is provided (e.g., play, stop, pause, fast forward and re-wind capability is provided to the user within the context of a video-on-demand environment). The digital link serves as an interface between the information provider equipment and the information distribution system used to provide information to, and receive commands from, a user. The information distribution system comprises, for example, a cable television distribution system.

At step 0, the user causes a "pause" command to be sent to the set top box 260 by, for example, pressing a "pause" key on a remote control device (not shown). At step 1, the set top box 260 receives the pause command and responsively causes the present video frame to be frozen. That is, the set top box causes the presentation device 250 to display a still image. The set top box 260 also propagates the pause command to the transport processor 240 via the communications network, illustratively the cable television distribution system.

At step 3, the transport processor 240 propagates the pause command to the head end controller 220. At step 4, the head end controller propagates the pause command to the video server 230. At step 5, the video server sends a "get position in movie" request to the head end controller 220. At step 6, the head end controller, after determining the present position of the movie being viewed by the user, provides to the advertisement manager 210 the position in the movie and the movie title or identifier. At step 7, the advertisement manager determines which ads to make available to the user. At step 8, the advertisement manager determines which display information to download. At step 9, the determined display information is provided to the transport processor 240. At step 10, the transport processor 240 sends the display information to the set top box 260. At step 11, the set top box 260 causes the ad information to be displayed by the presentation device 250. At step 12, the user selects, via a remote control device, a hot spot or link associated with the displayed ad information. At step 13, the selected hot spot or link is propagated from the set top box 260 to the transport

processor 240 via the communications network. At step 14, the selected hot stop or advertisement link is propagated from the transport processor 240 to the advertisement manager 210. At step 15, the advertisement manager determines whether the selected ad is web based, text based, or streaming content based (i.e., MPEG-based). At step 16, if the selected ad is web based then the advertisement manager 210 retrieves the web based ad from a web site. At step 17, the retrieved or downloaded web ad or the text ad is provided to the transport processor 240. Alternatively, in the case of the selected ad comprising a video content or other content stored on the video server 230, that ad is provided to the transport processor 240 by the video server 230. At step 18, the retrieved or downloaded ad is provided by the transport processor 240 to the set top box 260 via the communications network. At step 19, the set top box 260 causes the downloaded ad to be displayed on the presentation device 250 (see Appellants' specification, page 10, line 29 to page 13, line 4).

As suggested in MPEP 1206, Appellants now read one of the broadest appealed claims on the specification and the drawings. However, it should be understood that the appealed claim may read on other portions of the specification or other figures that are not listed below.

In one embodiment of the present invention, a method is provided for inserting advertisement and/or other information into an audio-video presentation during the presentation of non-active imagery. More specifically, in a case of a user interrupting the standard presentation of a content stream via, for example, pressing a pause or stop button on a remote control device, the size of an image region presently displaying the interrupted content stream is reduced, and advertisement and/or other information is inserted into at least portions of the image region formerly occupied by the interrupted content imagery or overlayed onto the interrupted content imagery. (See Appellants' specification, page 2, line 27 to page 3, line 3, and Figures 1, 2, and 5).

For the convenience of the Board of Patent Appeals and Interferences, Appellants' claim 17 (one of the broadest independent claims) is presented below in claim format with elements read on FIG. 3 of the drawings, as suggested in MPEP 1206. Claim 1 positively recites (with reference numerals added):

1. In an interactive information distribution system (100) including information provider equipment and information consumer equipment (140), a method for use in an information server (122) comprising the steps of:
 - providing (502) a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer (504), performing the steps of:
 - halting (506) the providing of said primary VOD content stream to said information consumer; and
 - providing (508) a secondary content to said information consumer.

Issues Presented

Whether claims 1-15 are patentable under 35 U.S.C. §103(a) over the Mankovitz patent (Patent No. WO98/48566, published October 29, 1998, hereinafter "Mankovitz") in view of the Inoue et al. patent (U.S. Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"), as well as Mankovitz in view of the Inoue patent and in further view of the Dedrick patent (United States Patent No. 5,724,521, issued March 3, 1998).

Grouping of Claims

The rejected pending claims 1-9 and 10-15 have been grouped together in the rejection. Unless grouped by Appellants, the Appellants urge that each of the rejected claims stands on its own recitation, the claims being considered to be separately patentable for reasons set forth below in more detail.

The References

The following references are relied on by the Examiner:

<u>Author</u>	<u>Publication Title or Reference Number</u>	<u>Publication Date</u>
Mankovitz et al.	International Application WO 98/48566	October 29, 1998
Inoue et al.	United States Patent: 5,729,280	March 17, 1998
Dedrick	United States Patent: 5,724,521	March 3, 1998

Brief Description of the References

PCT Application No. WO98/48566 to Mankovitz et al. (hereinafter "Mankovitz") teaches a television system that allows a viewer of a text-enhanced television program to pause the program at a particular frame, browse the enhancements at his or her

leisure, and then resume viewing the program from that frame, without losing continuity of the video and enhancement portions of the program or program content. This is accomplished by time-shifting the television program for later playback (see Mankovitz, Abstract, and page 2, lines 10-15). The main focus of Mankovitz is to enable a television viewer to access information about a television program that the viewer is watching, program related information (PRI) is embedded in the vertical blanking interval (VBI) of the television signal carrying the television program. For example, the PRI may be textual information regarding actors and actresses in the show, advertisements of program-related merchandise, brief descriptions of the plot of future episodes of the television program, or any other text regarding the television program, or the PRI may be text representing web pages containing such information (see Mankovitz, page 5, lines 15-22).

Mankovitz further discloses that as a television signal is being stored, if a viewer wants to interact with the PRI such as website data or other textual information being displayed on the television screen, the viewer sends a command to the microprocessor 24 via the viewer input device 28. The viewer action to send the command could, for example, consist of pushing a button on the viewer input device. In response, the microprocessor 24 controls VCR 17 to output the television signal to the storage device 52, which begins storing the television signal, including the PRI information embedded in the VBI. The storage device 52 simultaneously outputs the first stored frame of the video signal to the signal processing unit for extended display on television 32. The television 32 continues to display this frame until controlled by the viewer to continue without effect on any viewer activity with the PRI shown in the remainder of the display screen. The viewer then interacts with the PRI. When the viewer is done interacting with the PRI, the viewer sends a command to the microprocessor 24 to resume display of the television program (see Mankovitz, page 7 line 27 to page 8 line 7, and FIG. 1).

United States Patent No. 5,729,280 to Inoue et al. (hereinafter "Inoue") teaches a near video-on-demand (NVOD) signal receiver capable of pausing the display of a video program transmitted by a broadcaster and resuming display of the program from that point without additional delay. Inoue further teaches displaying previews of several

video programs after selection of the program by the user (see Inoue, col. 2, lines 33-57).

The main focus of Inoue is to resolve problems associated with near video-on-demand systems such as the inability to provide a "pause" function, which allows a viewer to interrupt display of the NVOD program for a period of time, as well as the variable delay between a subscriber's ordering of a program and the availability of such program for viewing (see Inoue, col. 2, lines 8-29). The Inoue patent overcomes these problems in a NVOD system by broadcasting a NVOD program over a plurality of channels each at overlapping periodic time intervals (e.g., every 17 minutes) (see Inoue, col. 6, lines 4-9). The NVOD receiver stores portions of the NVOD programming associated with a particular channel when a pause command is sent by a user. Once the duration of recording equals the broadcast interval (e.g., 17 minutes), the microcomputer controls read/write controller 18 to cease the recording of the video signals from the particular channel. When the user resumes play, the stored content is sent to the user for display (see Inoue, col. 6, lines 10-51).

United States Patent No. 5,724,521 to Dedrick teaches providing electronic advertisements to end users in a consumer best-fit pricing manner. The main focus of Dedrick is to resolve problems associated with advertisers trying to target specific audiences. Specifically, advertisers often desire to target particular audiences for their advertisements. These targeted audiences are the audiences which an advertiser believes is most likely to be influenced by the advertisement, as opposed to a large population of end users, who have no interest in the product or service being advertised (see Dedrick, col. 1, lines 45-65, col. 2, line 16).

The Dedrick patent overcomes these problems by collecting data for a personal profile database 27 by direct input from the end user, and also by client activity monitor 24 monitoring the end user's activity. When the end user consumes a piece of electronic information, each variable (or portion of each variable) within the header block for that piece of electronic information is added to the database for this end user. For example, if this piece of electronic information is made available to the end user for consumption in both audio and video format, and the end user selects the audio format, then this selection is stored in personal profile database 27 for this end user. When

sufficient data has been collected for a particular consumer variable, then content adapter 25 uses the data to customize received electronic content to the end user (See Dedrick, col. 8, lines 17-32).

ARGUMENTS

THE ISSUES UNDER 35 U.S.C. §103

It is submitted that a reasonable interpretation of the references as proposed by the Examiner in the first and second non-final office actions, as well as the Final Office Action would not have resulted in the invention recited in the Appellants' claims.

A. 35 U.S.C. §103 – Claim 1

The Examiner has rejected claim 1 in paragraph 4 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter “Mankovitz”) in view of Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter “Inoue”). The rejection is respectfully traversed.

First, the Examiner alleges that Mankovitz discloses:

“an interactive information system including information consumer equipment (see Figure 1). In such a system, it is inherent that there must be provider equipment. Also taught is a method for use in an information server wherein a primary content stream is provided to an information consumer (“Television Signal,” page 5, line 25) and in response to a pause command received from the consumer (pages 7-8, lines 30-35 and “Pause,” page 8, line 34) the primary content stream provided to the consumer is halted while simultaneously being stored in memory for later use and a second content is provided to the consumer (see Figure 2). What is not disclosed, however, is a system wherein the primary content stream is a video-on-demand (VOD) stream.”

The Examiner further alleges that “Inoue discloses recording the primary content stream (col. 5, lines 28-32) during use of a pause function (col. 5, line 59). During this pause, the program may continue to be displayed, or another program (secondary content) may be received and the displayed (col. 6, lines 29-32). Inoue is evidence that ordinary workers in the art would appreciate the ability to implement video-on-demand streaming in a television system with a pause function displaying a secondary program stream and a recording memory buffer for recording the primary stream. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Mankovitz with the video-on-demand of Inoue in order to offer

users the ability to request and view program content at any time to increase revenue."

Appellants disagree with the Examiners reading of the cited reference. The Board's attention is directed to the fact that Mankovitz and Inoue fail to teach or suggest Appellants' "providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer." Specifically, Appellants' independent claim 1 recites:

"1. In an interactive information distribution system including information provider equipment and information consumer equipment, a method for use in an information server comprising the steps of:

providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of:

halting the providing of said primary VOD content stream to said information consumer; and

providing a secondary content to said information consumer." (emphasis added).

The Appellants' invention teaches a method for providing secondary content to an end user in response to pausing or stopping the receipt of primary video-on-demand content from an information provider. Namely, Appellants' invention teaches providing a video-on-demand (VOD) content stream to an information consumer from the service provider equipment, and in response to a pause or stop command, the service provider equipment halts the primary VOD content stream and provides instead, secondary content to the information consumer.

Referring to FIG. 2, "the information provider equipment depicted in FIG. 2 comprises an advertisement manager 210, illustratively a computer accessing information via the internet, a head end controller 220, a video server 230, and a digital link or transport processor 240. It should be noted that the head end controller 220, video server 230, transport processor 240 and advertisement manager 210 depicted in FIG. 2 function in substantially the same manner as the respective head end controller 124, video server 122, transport processor 126 and advertisement manager 128

depicted in FIG. 1. As such, differences between the various descriptions of the functional components are intended to address alternative embodiments of the invention.

The advertisement manager 210 comprises, illustratively, a computing device adapted to receive information via a network such as the internet and to disseminate the received information to either the head end controller 220 or the transport processor 240. The head end controller (HEC) 220 coordinates all of the information provider activities via control messages that are propagated throughout the system. The video server 230 stores content streams and other information streams that will be provided to a set top box associated with a user requesting the stored stream. The content streams comprise, illustratively, movies, music videos, television programs, video/audio advertisements and other content. The video server 230 operates in an interactive manner with a user requesting a content stream such that full VCR-like functionality is provided (e.g., play, stop, pause, fast forward and re-wind capability is provided to the user within the context of a video-on-demand environment). The digital link serves as an interface between the information provider equipment and the information distribution system used to provide information to, and receive commands from, a user. The information distribution system comprises, for example, a cable television distribution system.

At step 0, the user causes a "pause" command to be sent to the set top box 260 by, for example, pressing a "pause" key on a remote control device (not shown). At step 1, the set top box 260 receives the pause command and responsively causes the present video frame to be frozen. That is, the set top box causes the presentation device 250 to display a still image. The set top box 260 also propagates the pause command to the transport processor 240 via the communications network, illustratively the cable television distribution system.

At step 3, the transport processor 240 propagates the pause command to the head end controller 220. At step 4, the head end controller propagates the pause command to the video server 230. At step 5, the video server sends a "get position in movie" request to the head end controller 220. At step 6, the head end controller, after determining the present position of the movie being viewed by the user, provides to the

advertisement manager 210 the position in the movie and the movie title or identifier. At step 7, the advertisement manager determines which ads to make available to the user. At step 8, the advertisement manager determines which display information to download. At step 9, the determined display information is provided to the transport processor 240. At step 10, the transport processor 240 sends the display information to the set top box 260. At step 11, the set top box 260 causes the ad information to be displayed by the presentation device 250" (see Appellants' specification, page 11, line 3 to page 12, line 19, and FIG. 2).

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). The combination of Mankovitz and Inoue fails to teach or suggest the Appellants' invention as a whole. In particular, the Mankovitz reference teaches:

"To enable a television viewer to access information about a television program that the viewer is watching, PRI is embedded in the VBI of the television carrying the television program. For example, the PRI may be textual information regarding actors and actresses in the show, advertisements of program-related merchandise, brief descriptions of the plot of future episodes of the television program, or any other text regarding the television program, or the PRI may be text representing web pages containing such information." (See Mankovitz, pg. 5, lines 15-21).

However, the Mankovitz reference fails to teach and suggest "providing a primary video-on-demand (VOD) content stream to an information consumer". Rather, the Mankovitz reference merely discloses broadcasting television programs and including content based on a personalized file of an end-user during vertical blanking. Therefore, the Mankovitz reference fails to teach or suggest the Appellants' invention as a whole.

Furthermore, the Inoue reference fails to bridge the substantial gap as between the Mankovitz reference and the Appellants' invention. In particular, the Inoue reference teaches providing near video-on-demand (NVOD) services, as opposed to providing video-on-demand services. Specifically, the Inoue reference teaches providing a near video-on-demand signal receiver capable of pausing a display of a

video program transmitted by a broadcaster and resuming display of the program from that point without additional delay. Near video-on-demand, as defined in the Inoue reference is also called a "time interval transmitting system" in which a single video program is broadcast on multiple channels with a short interval between the starting time of each program broadcast. For example, a two-hour movie may be broadcast on seven consecutive channels with the starting broadcast time of each channel offset by 15 minutes from that of a neighboring channel, such that the beginning of the movie is effectively available on one of the channels once every 15 minutes. (See, Inoue, col. 1, lines 46-67, and col. 2, lines 33-57). Accordingly, near video-on-demand is not the same as video-on-demand services, since video-on-demand services provide a single content stream to a subscriber at any time of the day, as opposed to near video-on-demand services that provide multiple content streams in particular time slots on various channels.

The references must be taken in their entireties, including those portions which argue against obviousness. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 U.S.P.Q. 416, 420 Fed. Cir. 1986). It is impermissible within the framework of the 35 U.S.C. § 103 to pick and choose from a reference only so much of it as will support a conclusion of obviousness to the exclusion of other parts necessary to a full appreciation of what the reference fairly suggests to one skilled in the art. Id. at 419. In this instance the Examiner has improperly picked and chose various teachings of the cited references to improperly support a conclusion of obviousness to the exclusion of other parts necessary to provide a full appreciation of what the references fairly suggest to one skilled in the art.

In particular, neither the Mankovitz nor the Inoue reference teach or suggest video-on-demand services. Rather, the Mankovitz reference merely discloses broadcasting television programs, while Inoue reference merely discloses near video-on-demand services. Neither of the references, either singularly or in combination, teaches or suggests that a response to a stop or pause command received from information consumer equipment halts the providing of the primary VOD content stream to the information consumer and provides a secondary content to the information consumer. Thus, the combining of these two references is improper because neither of

the references provide any teaching, suggestion, or motivation that the halting of the providing of the primary VOD content stream and providing a secondary content to the information consumer in response to a stop or pause command is applicable to a system that provides video-on-demand services, as opposed to television broadcasting programs or near video-on-demand services.

Moreover, even if the two references could operably be combined, the combination would merely disclose either broadcasting a television program to a viewer and embedding program-related information (PRI) embedded in the vertical blanking interval (VBI) of the television carrying the television program, where the PRI may include advertisement related to the programming or near video-on-demand content provided over a plurality of channels during particular time slots, and in an instance where a subscriber pauses/stops the NVOD, a second program may be provided to the subscriber. This is completely different from the Appellants' invention, since the Appellants' invention provides a primary video-on-demand content stream to an information consumer, and in a response to a stop or pause command received from the information consumer, the primary VOD content stream is halted and a secondary content is then provided to the information consumer. Nowhere in the combined references is there any teaching or suggestion of providing a primary video-on-demand content stream, and in response to a stop or pause command received by the information consumer, halting the primary video-on-demand content stream, and then providing secondary content to the information consumer. Therefore, the combined references fail to teach the Appellants' invention as a whole.

In addition, the Examiner contends in the Advisory Action dated November 3, 2003 (paper number 10) that the "applicant does not claim any reason why VOD is necessary over NVOD. Therefore, there is no patentable advance in the art by using VOD over NVOD in such a system as claims by Appellant. Since VOD and NVOD perform the same functions, there is no significant distinction between the two methods in view of the claimed invention." The Appellants disagree with the Examiners contention in the Advisory Action.

In particular, a video-on-demand system has many advantages over a near video-on-demand system. For example, a VOD system does not require nearly the

amount of bandwidth required by a NVOD system to deliver content. In the Inoue reference, the NVOD system required multiple content streams of the same program being sent over a distribution network. In Figure 2 of Inoue, seven illustrative content streams are being provided to enable NVOD content to an end user. By contrast, a VOD system only requires a single content stream per program to be sent to the user. That reduces the bandwidth requirements by a factor of 6, thereby freeing up valuable service provider resources for other subscribers and functions, as well as reducing the costs to send such redundant and time delayed information necessitated by a NVOD system.

Further, additional resources must be allocated to store the NVOD content when a user stops or pauses the primary NVOD content stream. The Inoue reference teaches that a large storage area is required to store a second channel of the NVOD program content (illustratively seventeen minutes worth of data) (see Inoue, col. 6, lines 10-36). By contrast, additional storage area is not required in a VOD system. In a VOD system, the end user simply sends a pause or stop command, and the VOD provider equipment ceases to send the primary VOD content stream. Once the pause or stop command is received by the VOD provider equipment, the VOD provider equipment then sends a secondary content stream to the end user instead. These are but a few examples of the advantages of a VOD system over a NVOD system.

The Examiner has short-sightedly taken only the view point of the end user, who may only see slight differences between receiving content from a VOD content distribution system, as opposed to an NVOD content distribution system. However, the value and cost savings are significant for a service provider who must allocate resources to provide such content to its end users. NVOD systems are quickly being replaced by VOD systems because the advantages discussed above, among others. Accordingly, VOD and NVOD perform similar functions from the perspective of an end user. However there is a very significant distinction between the two methods in view of the claimed invention, since NVOD and VOD systems operate and are implemented in a completely different manner from the perspective of the content service provider.

Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art

suggested the desirability of the modification. In re Fritch, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992); In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). There is no teaching or suggestion in the combined references that the claimed invention could be implemented in a VOD content distribution system. Rather, the Examiner is impermissibly using hindsight to conclude that it is desirable to implement the claimed invention of "providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer" in a VOD environment, as opposed to a television broadcasting system or NVOD system. Therefore, the combination of Mankovitz and Inoue fails to teach or suggest the Appellants' invention as a whole.

As such, the Appellants submit that independent claim 1 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejections of these claims be reversed.

B. 35 U.S.C. §103 – Claim 2

The Examiner has rejected claim 2 in paragraph 4 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter "Mankovitz") in view of Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"). The rejection is respectfully traversed.

First, claim 2 depends from independent claim 1 and recites additional features thereof. The combination of Mankovitz and Inoue fails to teach or suggest claim 2 of Appellants' invention, since the combined references fail to teach or suggest "providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer." Rather, the combined references merely teach providing broadcasted or

NVOD programs to an end user. As discussed above, there is a very significant distinction between the two methods in view of the claimed invention, since NVOD and VOD systems operate and are implemented in a completely different manner from the perspective of the content service provider. Therefore, the combination of Mankovitz and Inoue fails to teach or suggest the Appellant's invention as a whole.

As such, Appellants respectfully submit that dependent claim 2 is also not made obvious by the teachings of Mankovitz and Inoue and, as such, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

Second, the Examiner alleges that Mankovitz in view of Inoue disclose a method as stated above in claim 1. Further, Mankovitz discloses:

"restarting the providing of the primary content stream to the consumer in response to a resume command received from the consumer (page 8, lines 6-7). The primary content stream could be a VOD stream as disclosed by Inoue as stated above."

The Appellants respectfully disagree. The teachings of Mankovitz and Inoue are completely different from the invention as recited in claim 2 by Appellants. In particular, claim 2 recites:

"2. The method of claim 1, further comprising the step of:
restarting the providing of said primary VOD content stream to said information consumer in response to a play or resume command received from said information consumer." (emphasis added).

The combined references are completely silent with respect to "restarting the providing of said primary VOD content stream to said information consumer in response to a play or resume command received from said information consumer." Specifically, "upon the subscriber pressing the PLAY button 435, the first display window 410 is re-established and the requested content is again provided as streaming video to the subscriber for presentation" (see Appellants' specification page 16, lines 10-12).

By contrast, the combined references do not teach or suggest the limitations "restarting the providing of said primary VOD content stream to said information consumer in response to a play or resume command received from said information

consumer." Rather, the Mankovitz merely discloses "when the viewer is done interacting with the PRI, the viewer sends a command to the microprocessor 24 to resume display of the television program (see Mankovitz, page 8, lines 6-7). Thus, the Mankovitz reference is completely silent regarding "restarting the providing of said primary VOD content stream to said information consumer in response to a play or resume command received from said information consumer". That is, the Mankovitz and the Inoue references fail to teach or suggest providing a primary VOD content stream in response to a play or resume command from the information consumer. Therefore, the combined references fail to teach or suggest the Appellants' invention as a whole.

As such, the Appellants submit that independent claim 2 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

C. 35 U.S.C. §103 – Claim 4

The Examiner has rejected claim 4 in paragraph 4 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter "Mankovitz") in view of Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"). The rejection is respectfully traversed.

First, claim 4 depends from independent claim 1 and recites additional features thereof. The combination of Mankovitz and Inoue fails to teach or suggest claim 4 of Appellants' invention, since the combined references fail to teach or suggest "providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer." Rather, the combined references merely teach providing broadcasted or NVOD programs to an end user. As discussed above, there is a very significant distinction between the two methods in view of the claimed invention, since NVOD and

VOD systems operate and are implemented in a completely different manner from the perspective of the content service provider. Therefore, the combination of Mankovitz and Inoue fails to teach or suggest the Appellants' invention as a whole.

As such, Appellants respectfully submit that dependent claim 4 is also not made obvious by the teachings of Mankovitz and Inoue and, as such, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

Second, the Examiner alleges that Mankovitz in view of Inoue disclose a method as stated above in claim 1. Further, Mankovitz discloses:

"a secondary advertisement content stream (page 5, lines 17-18) in the form of an Internet web page (page 5, lines 32-36) provided to the consumer based on program-related merchandise or any other text regarding the television program. This reads on the content stream being determined with respect to the segment of the first VOD content stream being presented to the consumer contemporaneous to the pause command."

The Appellants respectfully disagree. The teachings of Mankovitz and Inoue are completely different from the invention as recited in claim 4 by Appellants. In particular, claim 4 recites:

"4. The method of claim 1, wherein said secondary content provided to said information consumer is determined with respect to a segment of said primary VOD content stream being presented to said information consumer contemporaneous to said stop or pause command" (emphasis added).

The combined references are completely silent with respect to "said secondary content provided to said information consumer is determined with respect to a segment of said primary VOD content stream being presented to said information consumer contemporaneous to said stop or pause command." Specifically, "at step 504, the STOP or PAUSE command is received during the content presentation. The method 500 then proceeds to step 506, where a presently-displayed image is frozen. For example, in the case of the set-top box including a frame buffer (not shown), the contents of the frame buffer are not updated and are repeatedly provided to the presentation device, thereby effecting a "freezeframe" of the presently-viewed image frame. The method 500 then proceeds to step 508.

At step 508, advertisement information is integrated into the image presented via the display device. That is, advertisement information is integrated using one or more of the techniques depicted in box 510; namely, a mosaic display, a picture-in-picture (PIP) display, and overlay display or other display technique." (see Appellants' specification page 18, lines 10-21).

By contrast, the combined references do not teach or suggest the limitations "said information consumer is determined with respect to a segment of said primary VOD content stream being presented to said information consumer contemporaneous to said stop or pause command." Rather, the Mankovitz merely discloses "if the viewer wishes to access a website in connection with the television program, the viewer presses a button on a viewer input device 28 such as a remote controller, which introduces the Internet mode of operation shown in FIG. 2 (see Mankovitz, page 5, lines 32-36). Thus, the Mankovitz reference is completely silent regarding "said information consumer is determined with respect to a segment of said primary VOD content stream being presented to said information consumer contemporaneous to said stop or pause command". That is, the Mankovitz and the Inoue references fail to teach or suggest the secondary content provided to the information consumer is determined with respect to a segment of the primary VOD content stream being presented to the information consumer. Rather, the secondary content is determined with respect to a segment of broadcasted television program or a Nvod program. Therefore, the combined references fail to teach or suggest the Appellants' invention as a whole.

As such, the Appellants submit that independent claim 4 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

D. 35 U.S.C. §103 – Claim 6

The Examiner has rejected claim 6 in paragraph 4 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter "Mankovitz") in view of

Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"). The rejection is respectfully traversed.

First, claim 4 depends from independent claim 1 and recites additional features thereof. The combination of Mankovitz and Inoue fails to teach or suggest claim 6 of Appellants' invention, since the combined references fail to teach or suggest "providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer." Rather, the combined references merely teach providing broadcasted or NVOD programs to an end user. As discussed above, there is a very significant distinction between the two methods in view of the claimed invention, since NVOD and VOD systems operate and are implemented in a completely different manner from the perspective of the content service provider. Therefore, the combination of Mankovitz and Inoue fails to teach or suggest the Appellants' invention as a whole.

As such, Appellants respectfully submit that dependent claim 6 is also not made obvious by the teachings of Mankovitz and Inoue and, as such, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

Second, the Examiner alleges that Mankovitz in view of Inoue disclose a method as stated above in claim 1. Further, Mankovitz discloses:

"determining the last scene of the primary content being provided to the information consumer when the stream is halted (page 7, lines 35037) by outputting the last frame of the video to the signal-processing unit for extended display. Secondary content associated with the determined scene (page 8, lines 27-35) is selected and provided to the consumer in response to a pause command as stated above in claim 1. The primary content stream could be a VOD stream as disclosed by Inoue as stated above."

The Appellants respectfully disagree. The teachings of Mankovitz and Inoue are completely different from the invention as recited in claim 6 by Appellants. In particular, claim 6 recites:

"6. The method of claim 1, further comprising the steps of:

determining, for said halted VOD content stream, the last scene of said primary VOD content stream provided to said information consumer; and
selecting secondary content associated with said determined scene, said determined scene being associated with at least one secondary content stream, said selected secondary content stream being provided to said information consumer in response to said received stop or pause command." (emphasis added).

The combined references are completely silent with respect to "determining, for said halted VOD content stream, the last scene of said primary VOD content stream provided to said information consumer." In particular, "the movie descriptor file data base comprises a data base of the movie descriptor files associated with each of the content streams available to users via the video server 230. Specifically, a movie descriptor file comprises a file that delineates a content stream, such as a movie, according to scene changes or other parameters such that intra-scene content may be associated with corresponding advertisement information or content. For example, in one embodiment of the invention it is desirable to provide an advertisement stream or other advertisement content to a user based upon the stop or pause point of a content stream being provided to the user. The movie descriptor file data base comprises a data base in which a content stream such as a movie is divided into a plurality of (typically) non-uniform temporal portions where each temporal portion of scene has associated with it advertisement information. The advertisement information associated with each temporal portion or scene of a content stream is stored within the advertisement data base of the advertisement manager. By knowing the step or pause point, the movie descriptor file may be used to determine which scene or temporal portion includes the step or pause point. In this manner, the correct advertisement information may be determined." (see Appellants' specification page 7, lines 1-18).

By contrast, the combined references do not teach or suggest the limitations "determining, for said halted VOD content stream, the last scene of said primary VOD content stream provided to said information consumer." Rather, the Mankovitz merely discloses "the storage device 52 simultaneously outputs the first stored frame of the video signal to the signal processing unit for extended display on television (see Mankovitz, page 7, lines 35-37). Thus, the Mankovitz reference is completely silent regarding "determining, for said halted VOD content stream, the last scene of said

primary VOD content stream provided to said information consumer". That is, the Mankovitz and the Inoue references fail to teach or suggest a VOD content stream. Rather, the last scene of said primary VOD content stream provided to said information consumer is determined with respect to a broadcasted television program or a NVOD program. As discussed above, implementing a VOD system to provide a VOD content stream is completely different than providing a broadcasted television program or a NVOD program. Therefore, the combined references fail to teach or suggest the Appellants' invention as a whole.

As such, the Appellants submit that independent claim 6 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

E. 35 U.S.C. §103 – Claim 7

The Examiner has rejected claim 7 in paragraph 4 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter "Mankovitz") in view of Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"). The rejection is respectfully traversed.

Claim 7 depends from independent claim 1 and recites additional features thereof. The combination of Mankovitz and Inoue fails to teach or suggest claim 7 of Appellants' invention, since the combined references fail to teach or suggest "providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer." Rather, the combined references merely teach providing broadcasted or NVOD programs to an end user. As discussed above, there is a very significant distinction between the two methods in view of the claimed invention, since NVOD and VOD systems operate and are implemented in a completely different manner from the

perspective of the content service provider. Therefore, the combination of Mankovitz and Inoue fails to teach or suggest the Appellants' invention as a whole.

As such, Appellants respectfully submit that dependent claim 7 is also not made obvious by the teachings of Mankovitz and Inoue and, as such, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

F. 35 U.S.C. §103 – Claim 8

The Examiner has rejected claim 8 in paragraph 4 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter "Mankovitz") in view of Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"). The rejection is respectfully traversed.

First, claim 8 depends from independent claim 1 and recites additional features thereof. The combination of Mankovitz and Inoue fails to teach or suggest claim 8 of Appellants' invention, since the combined references fail to teach or suggest "providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer." Rather, the combined references merely teach providing broadcasted or NVOD programs to an end user. As discussed above, there is a very significant distinction between the two methods in view of the claimed invention, since NVOD and VOD systems operate and are implemented in a completely different manner from the perspective of the content service provider. Therefore, the combination of Mankovitz and Inoue fails to teach or suggest the Appellants' invention as a whole.

As such, Appellants respectfully submit that dependent claim 8 is also not made obvious by the teachings of Mankovitz and Inoue and, as such, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

Second, the Examiner alleges that Mankovitz in view of Inoue disclose a method as stated above in claim 1. Further, Mankovitz discloses:

"that the secondary content may be a web page (page 5, lines 23-24) displayed on an Internet web browser (page 6, lines 10-36). It is inherent in such a web browser environment that there be an "applet" or controlling program (browser) which comprises a video layer, and control layer, and a graphics layer wherein the video layer provides images associated with the secondary content (web page), the control layer enables the graphics layer to be used for selectively emphasizing and de-emphasizing portions of the video layer imagery in response to user interaction such as highlighting hyperlinks (see Figure 2)."

The Appellants respectfully disagree. The teachings of Mankovitz and Inoue are completely different from the invention as recited in claim 8 by Appellants. In particular, claim 8 recites:

"8. The method of claim 1, wherein said secondary content provided to said information consumer is provided as an applet comprising a video layer, a control layer and a graphics layer, said video layer providing at least imagery associated with said secondary content, said control layer enabling said graphics layer to be used for selectively emphasizing and de-emphasizing portions of said video layer imagery, said selective emphasizing and de-emphasizing occurring in response to user interaction." (emphasis added).

The combined references are completely silent with respect to "said secondary content provided to said information consumer is provided as an applet comprising a video layer, a control layer and a graphics layer." In particular, "in an important embodiment of the invention, "hot spots" within the displayed imagery are selectable by a user. Specifically, image regions including goods and/or services having associated with them additional information via respective scene-based links. The selection of a user of a particular hot spot is treated in the same manner as the selection of a scene-based link associated with goods and/or services associated with the imagery within that hot spot. The selection of such hot spots may be performed during still or moving imagery.

The above-described "hot spots" may comprise video layer or graphical layer imagery associated with particular goods and/or services shown within the displayed imagery, whether still or moving imagery. Alternatively, the "hot spots" may comprise web links or other advertisement related links displayed within or proximate to the still or

moving imagery. In one embodiment of the invention, the still or moving imagery and any web links, whether content-related web links or general web links are included within a video stream provided to the information consumer. Thus, in this embodiment, the imagery described above with respect to FIG. 4 is primarily provided within a so-called video layer. A graphical layer may be used to selectively provide emphasis or de-emphasis of hot spots in response to user manipulations tending to indicate particular hot spots. An example of combined video layer and graphical layer information being used in this manner, along with control layer information, is described in more detail in U.S. Patent Application Serial No. 08/984,427, filed on December 3, 1997, entitled METHOD AND APPARATUS FOR PROVIDING A MENU STRUCTURE FOR AN INTERACTIVE INFORMATION DISTRIBUTION SYSTEM. This U.S. Patent Application discloses a means for providing a navigator function within an interactive information distribution system such as the DIVA System, and is incorporated herein by reference in its entirety. Specifically, this patent discloses methods and apparatus for combining a video layer, graphical layer, and control layer together as an applet and providing the applet to a subscriber in response to a subscriber interaction requesting the applet. Within the context of the present invention, the teachings of U.S. Patent Application Serial No. 08/984,427 are applicable to the delivery of secondary content and/or the selection of such secondary content from a primary content stream. That is, given a primary content stream, or a secondary content stream, user interaction is interpreted by a control layer and associated with objects within a graphical layer such that video layer objects are responsively emphasized and/or de-emphasized within the video layer. In this manner, the subscriber may interactively select defined graphical/video objects within the received imagery, such as web links, hot spots indicative of goods and/or services within the primary content stream and other items. Other applications for these methods and apparatus to the present invention will be readily appreciated by those skilled in the art." (see Appellants' specification page 16, line 23 to page 17, line 32).

By contrast, the combined references do not teach or suggest the limitations "said secondary content provided to said information consumer is provided as an applet comprising a video layer, a control layer and a graphics layer." Moreover, it is not

inherent, as the Examiner contends, that the provider equipment provides the secondary content in a form of an applet comprising a video layer, a control layer, and a graphics layer.

For a missing element to be inherent, "extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." In re Roberston, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (internal quotations omitted) (emphasis added).

Accordingly, secondary content, such as a web page, may include only a video layer, and there is no teaching or suggestion that an applet comprising a video layer, graphics layer, and control layer, is sent as the secondary content in the form of an applet. Rather, control information and/or graphical information may be previously stored on the consumer device (e.g., set-top device) of the information consumer. That is, it is not inherent that "the provider equipment provides the secondary content in a form of an applet comprising a video layer, a control layer, and a graphics layer." Therefore, the combined references fail to teach or suggest the Appellants' invention as a whole.

As such, the Appellants submit that independent claim 8 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Appellants respectfully request that the rejection of this claim be reversed.

G. 35 U.S.C. §103 – Claims 3, 5, and 9

The Examiner has rejected claims 3, 5, and 9 in paragraph 5 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter "Mankovitz") in view of Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"), and in further view of Dedrick (United States Patent No. 5,724,521, issued March 3, 1998). The rejections are respectfully traversed.

Claims 3, 5, and 9 depend, either directly or indirectly, from independent claim 1 and recite additional features thereof. In particular, claims 3, 5, and 9 recite:

“3. The method of claim 1, wherein said secondary content provided to said information consumer is determined with respect to a demographic profile associated with said information consumer.”

“5. The method of claim 4, wherein said secondary content provided to said information consumer is additionally determined with respect to a demographic profile associated with said information consumer.”

“9. The method of claim 7, wherein said secondary content provided to said information consumer is determined with respect to one of a demographic profile associated with said information consumer and the segment of said content stream being presented to said information consumer contemporaneous to said stop or pause command.”

The combination of Mankovitz and Inoue fails to teach or suggest the features of claims 3, 5, and 9 of Appellants' invention, since the combined references fail to teach or suggest “providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of: halting the providing of said primary VOD content stream to said information consumer; and providing a secondary content to said information consumer”. Therefore, the combination of Mankovitz and Inoue fails to teach or suggest the Appellants' invention as a whole.

Furthermore, the Dedrick reference fails to bridge the substantial gap as between the Mankovitz and Inoue references, and the Appellants invention. In particular, the Dedrick reference teaches collecting personal profiled data from input by an end-user, monitoring new client activity, and using the collected personalized data to customize electronic content to the end-user. (See Dedrick, Col. 8, lines 17-39). However, nowhere is there any teaching or suggestion in the Dedrick reference of “providing a primary video-on-demand (VOD) content stream to an information consumer.”

Moreover, even if the three references could operably be combined, the combination would merely disclose sending either a television program or near video-on-demand programs and in response to a pause command, sending advertisement information associated with the broadcast program, and using collected personalized data to customize electronic content to the end user. Nowhere in the combined

references is there any teaching or suggestion of providing a primary video-on-demand content stream, and a response to a stop or pause command received by the information consumer, halting the primary video-on-demand content stream, and then providing secondary content to the information consumer. Therefore, the combined references fail to teach the Appellants' invention as a whole.

As such, Appellants respectfully submit that dependent claims 3, 5, and 9 are also not made obvious by the teachings of Mankovitz, Inoue, and Dedrick, and as such, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Appellants respectfully request that the rejections of these claims be reversed.

H. 35 U.S.C. §103 – Claims 10, 11, 12, 13, 14, and 15

The Examiner has rejected claim 10 in paragraph 6 of the Final Office Action as being obvious under 35 U.S.C. §103(a) over the Dedrick patent (United States Patent No. 5,724,521, issued March 3, 1998) in view of the Mankovitz et al. patent (United States Patent No. 6,292,834, issued September 18, 2001, hereinafter "Mankovitz"), and in further view of Inoue et al. (United States Patent No. 5,729,280, issued March 17, 1998, hereinafter "Inoue"). The rejection is respectfully traversed.

First, the Examiner alleges:

"Dedrick discloses an interactive information system including information consumer equipment (see Figure 1). A head-end controller for interacting with subscriber equipment is shown in Figure 2. A video server is disclosed that provides content streams responsive to the head-end controller ("Regional Content Server" see Figure 1). It is inherent in such a system that the video server must supply primary content as well as the secondary, targeting advertising content. Further, a transport processor is disclosed ("Metering Server", see Figure 1) for communicating content to the subscriber equipment via a distribution network. An advertisement manager is disclosed (see Figure 3) that is responsive to the head-end controller for providing secondary content. What is not disclosed, however, is the head-end controller, in response to a pause command received from the subscriber equipment, causing the advertisement manager to provide secondary content to the transport processor for communication to the subscriber.

Mankovitz discloses an apparatus for distributing information in an interactive environment where in response to a pause command received from the consumer (pages 7-8, lines 30-5 and "Pause," page 8, line 34) the primary content stream provided to the consumer is halted and secondary content is

provided to the consumer (see Figure 2). Mankovitz is evidence that ordinary workers in the art would recognize the benefits of being able to pause a first content stream and having a second advertising stream displayed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the secondary advertising content distribution server with advertising manager and transport processor of Dedrick with the pausing of the primary content to display the secondary content of Mankovitz in order to target ads to consumers without interrupting the primary program stream. What Dedrick in view of Mankovitz do not disclose, however, is a system wherein the primary content stream is a video-on-demand (VOD) stream."

The Examiner further alleges that "Inoue discloses a video signal receiver (see Figure 1) adapted to allow the user to request the reception and display (col. 5, lines 18-20) of video-on-demand programming (col. 5, lines 28-32) during use of a pause function (col. 5, line 59). During the pause, the program may continue to be displayed, or another program (secondary content) may be received and displayed (col. 6, lines 29-32). Inoue is evidence that ordinary workers in the art would appreciate the ability to implement video-on-demand streaming in a television system with a pause function displaying a secondary program stream and a recording memory buffer for recording the primary stream. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Dedrick in view of Mankovitz with the video-on-demand of Inoue in order to offer users the ability to request and view program content at any time to increase revenue."

Appellants disagree with the Examiners reading of the cited reference. The Board's attention is directed to the fact that Dedrick, Mankovitz, and Inoue fail to teach or suggest Appellants' "a video server, responsive to said head end controller for providing primary video-on-demand (VOD) content streams." Specifically, Appellants' independent claim 10 recites:

"10. In an interactive information distribution system including provider equipment and subscriber equipment, provider apparatus comprising:
a head end controller for interacting with subscriber equipment;
a video server, responsive to said head end controller for providing primary video-on-demand (VOD) content streams;
a transport processor, for communicating VOD content to said subscriber equipment via a distribution network; and
an advertisement manager, responsive to said head end controller for providing secondary content;
said head end controller, in response to a stop or pause command received from said subscriber equipment, causing said advertisement manager to provide said secondary content to said transport processor for communication to said subscriber equipment." (emphasis added).

Furthermore, dependent claims 11 through 15 recite:

“11. The apparatus of claim 10, wherein said secondary content provided to a subscriber is determined with respect to the demographic profile associated with said subscriber.”

“12. The apparatus of claim 10, wherein said secondary content provided to said subscriber is determined with respect to temporal segments of said content halted by said subscriber.”

“13. The apparatus of claim 12, wherein said primary VOD content provided to said subscriber is divided into a plurality of temporal portions, each of said temporal portions having associated with it secondary content.”

“14. The apparatus of claim 13, wherein said secondary content comprises advertising content.”

“15. The apparatus of claim 10, wherein said secondary content provided to said subscriber is determined with respect to one of a demographic profile associated with said subscriber and the segment of said content stream being provided to said subscriber contemporaneous to said stop or pause command.”

The Appellants' invention teaches an apparatus for providing secondary content to an end user in response to pausing or stopping the receipt of primary video-on-demand content from an information provider. Namely, Appellants' invention teaches providing a video-on-demand (VOD) content stream to an information consumer from the service provider equipment (i.e., a video server), and in response to a pause or stop command, the service provider equipment halts the primary VOD content stream and provides instead, secondary content to the subscriber equipment.

Referring to FIG. 2, “the information provider equipment depicted in FIG. 2 comprises an advertisement manager 210, illustratively a computer accessing information via the internet, a head end controller 220, a video server 230, and a digital link or transport processor 240. It should be noted that the head end controller 220, video server 230, transport processor 240 and advertisement manager 210 depicted in FIG. 2 function in substantially the same manner as the respective head end controller 124, video server 122, transport processor 126 and advertisement manager 128 depicted in FIG. 1. As such, differences between the various descriptions of the

functional components are intended to address alternative embodiments of the invention.

The advertisement manager 210 comprises, illustratively, a computing device adapted to receive information via a network such as the internet and to disseminate the received information to either the head end controller 220 or the transport processor 240. The head end controller (HEC) 220 coordinates all of the information provider activities via control messages that are propagated throughout the system. The video server 230 stores content streams and other information streams that will be provided to a set top box associated with a user requesting the stored stream. The content streams comprise, illustratively, movies, music videos, television programs, video/audio advertisements and other content. The video server 230 operates in an interactive manner with a user requesting a content stream such that full VCR-like functionality is provided (e.g., play, stop, pause, fast forward and re-wind capability is provided to the user within the context of a video-on-demand environment). The digital link serves as an interface between the information provider equipment and the information distribution system used to provide information to, and receive commands from, a user. The information distribution system comprises, for example, a cable television distribution system.

At step 0, the user causes a "pause" command to be sent to the set top box 260 by, for example, pressing a "pause" key on a remote control device (not shown). At step 1, the set top box 260 receives the pause command and responsively causes the present video frame to be frozen. That is, the set top box causes the presentation device 250 to display a still image. The set top box 260 also propagates the pause command to the transport processor 240 via the communications network, illustratively the cable television distribution system.

At step 3, the transport processor 240 propagates the pause command to the head end controller 220. At step 4, the head end controller propagates the pause command to the video server 230. At step 5, the video server sends a "get position in movie" request to the head end controller 220. At step 6, the head end controller, after determining the present position of the movie being viewed by the user, provides to the advertisement manager 210 the position in the movie and the movie title or identifier. At

step 7, the advertisement manager determines which ads to make available to the user.

At step 8, the advertisement manager determines which display information to download. At step 9, the determined display information is provided to the transport processor 240. At step 10, the transport processor 240 sends the display information to the set top box 260. At step 11, the set top box 260 causes the ad information to be displayed by the presentation device 250" (see Appellants' specification, page 11, line 3 to page 12, line 19, and FIG. 2).

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). The combination of Dedrick, Mankovitz, and Inoue fails to teach or suggest the Appellants' invention as a whole.

In particular, the Dedrick reference discloses:

"a network system 10 including a plurality of client systems 12 coupled to a metering server 14, and the metering server 14 coupled to a publisher unit 18 through a plurality of clearinghouse servers 20. The publisher/advertiser 18 is also provided with software tools to create electronic information in a wide variety of consumption formats that can be transmitted over the system. These consumption formats include formats such as audio, video, graphics, animation, text, etc. For example, an advertiser 18 may create an advertisement for a camera which describes the camera in both audio and video format. Both of these consumption formats are transferred to the metering servers 14, and subsequently to the client systems 12. The end user is then able to consume the advertisement in whichever format he or she prefers, or alternatively in both formats." (See Dedrick, col. 2, line 54 to col. 3, line 10, col. 4, lines 37-48, and FIGS. 1 and 2).

Further, the Mankovitz reference teaches:

"To enable a television viewer to access information about a television program that the viewer is watching, PRI is embedded in the VBI of the television carrying the television program. For example, the PRI may be textual information regarding actors and actresses in the slow, advertisements of program-related merchandise, brief descriptions of the plot of future episodes of the television program, or any other text regarding the television program, or the PRI may be text representing web pages containing such information." (See Mankovitz, pg. 5, lines 15-21).

However, the neither the Dedrick nor Mankovitz references teach or suggest "providing a primary video-on-demand (VOD) content streams". Rather, Dedrick merely discloses providing advertisement information base on demographic information of the user, while the Mankovitz reference merely discloses broadcasting television programs and including content based on a personalized file of an end-user during vertical blanking. Therefore, the Dedrick and Mankovitz references fail to teach or suggest the Appellants' invention as a whole.

Furthermore, the Inoue reference fails to bridge the substantial gap as between the Dedrick and Mankovitz references, and the Appellants' invention. In particular, the Inoue reference teaches providing near video-on-demand (NVOD) services, as opposed to providing video-on-demand services. Specifically, the Inoue reference teaches providing a near video-on-demand signal receiver capable of pausing a display of a video program transmitted by a broadcaster and resuming display of the program from that point without additional delay. Near video-on-demand, as defined in the Inoue reference is also called a "time interval transmitting system" in which a single video program is broadcast on multiple channels with a short interval between the starting time of each program broadcast. For example, a two-hour movie may be broadcast on seven consecutive channels with the starting broadcast time of each channel offset by 15 minutes from that of a neighboring channel, such that the beginning of the movie is effectively available on one of the channels once every 15 minutes. (See, Inoue, col. 1, lines 46-67, and col. 2, lines 33-57). Accordingly, near video-on-demand is not the same as video-on-demand services, since video-on-demand services provide a single content stream to a subscriber at any time of the day, as opposed to near video-on-demand services that provide multiple content streams in particular time slots on various channels.

The references must be taken in their entireties, including those portions which argue against obviousness. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 U.S.P.Q. 416, 420 Fed. Cir. 1986). It is impermissible within the framework of the 35 U.S.C. § 103 to pick and choose from a reference only so much of it as will support a conclusion of obviousness to the exclusion of other parts necessary to a full appreciation of what the reference fairly suggests to one skilled in the art. Id. at 419. In

this instance the Examiner has improperly picked and chose various teachings of the cited references to improperly support a conclusion of obviousness to the exclusion of other parts necessary to provide a full appreciation of what the references fairly suggest to one skilled in the art.

In particular, the Dedrick, Mankovitz or the Inoue references fail to teach or suggest video-on-demand services. Rather, Dedrick discloses providing advertising information based on demographic profiles of the end users, the Mankovitz reference merely discloses broadcasting television programs, while Inoue reference merely discloses near video-on-demand services. None of the references, either singularly or in combination, teaches or suggests "a video server, responsive to said head end controller for providing primary video-on-demand (VOD) content streams." Thus, the combining of these three references is improper because none of the references provide any teaching, suggestion, or motivation that providing the primary VOD content stream and providing a secondary content to the information consumer in response to a stop or pause command, is applicable to a system that provides video-on-demand services, as opposed to television broadcasting programs or near video-on-demand services.

Moreover, even if the three references could operably be combined, the combination would merely disclose either broadcasting a television program to a viewer and embedding program-related information (PRI) embedded in the vertical blanking interval (VBI) of the television carrying the television program, where the PRI may include advertisement related to the programming or near video-on-demand content provided over a plurality of channels during particular time slots, and in an instance where a subscriber pauses/stops the NVOD, a second program may be provided to the subscriber. This is completely different from the Appellants' invention, since the Appellants' invention provides a primary video-on-demand content stream to an information consumer, and in a response to a stop or pause command received from the information consumer, the primary VOD content stream is halted and a secondary content is then provided to the information consumer. Nowhere in the combined references is there any teaching or suggestion of a video server, responsive to said head end controller for providing a primary video-on-demand (VOD) content stream,

and in response to a stop or pause command received from the subscriber equipment, causing said advertisement manager to provide said secondary content to said transport processor for communication to said subscriber equipment. Therefore, the combined references fail to teach the Appellants' invention as a whole.

In addition, the Examiner contends in the Advisory Action dated November 3, 2003 (paper number 10) that the "applicant does not claim any reason why VOD is necessary over NVOD. Therefore, there is no patentable advance in the art by using VOD over NVOD in such a system as claimed by Applicants. Since VOD and NVOD perform the same functions, there is no significant distinction between the two methods in view of the claimed invention." The Appellants disagree with the Examiners contention in the Advisory Action.

In particular, a video-on-demand system has many advantages over a near video-on-demand system. For example, a VOD system does not require nearly the amount of bandwidth required by a NVOD system to deliver content. In the Inoue reference, the NVOD system required multiple content streams of the same program being sent over a distribution network. In Figure 2 of Inoue, seven illustrative content streams are being provided to enable NVOD content to an end user. By contrast, a VOD system only requires a single content stream per program to be sent to the user. That reduces the bandwidth requirements by a factor of 6, thereby freeing up valuable service provider resources for other subscribers and functions, as well as reducing the costs to send such redundant and time delayed information necessitated by a NVOD system.

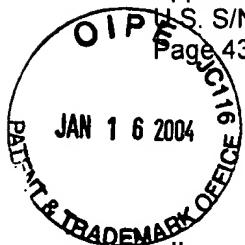
Further, additional resources must be allocated to store the NVOD content when a user stops or pauses the primary NVOD content stream. The Inoue reference teaches that a large storage area is required to store a second channel of the NVOD program content (illustratively seventeen minutes worth of data) (see Inoue, col. 6, lines 10-36). By contrast, additional storage area is not required in a VOD system. In a VOD system, the end user simply sends a pause or stop command, and the VOD provider equipment ceases to send the primary VOD content stream. Once the pause or stop command is received by the VOD provider equipment, the VOD provider equipment

then sends a secondary content stream to the end user instead. These are but a few examples of the advantages of a VOD system over a NVOD system.

The Examiner has mistakenly taken the view of the end user, who may only see a slight difference between receiving content from a VOD content distribution system, as opposed to an NVOD content distribution system. However, the value and cost savings are significant for a service provider who must allocate resources to provide such content to its end users. NVOD systems are quickly being replaced by VOD systems because the advantages discussed above, among others. Accordingly, VOD and NVOD perform similar functions from the perspective of an end user. However there is a very significant distinction between the two methods in view of the claimed invention, since NVOD and VOD systems operate and are implemented in a completely different manner from the perspective of the content service provider.

Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992); In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). There is no teaching or suggestion in the combined references that the claimed invention could be implemented in a VOD content distribution system. Rather, the Examiner is impermissibly using hindsight to conclude that it is desirable to implement the claimed invention of "a video server, responsive to said head end controller for providing a primary video-on-demand (VOD) content streams. Therefore, the combination of Dedrick, Mankovitz, and Inoue fails to teach or suggest the Appellants' invention as a whole.

As such, the Appellants submit that independent claim 10 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Furthermore, claims 11, 12, 13, 14, and 15 depend from independent claim 10 and recite additional features thereof. As such, the Appellants submit that these dependent claims are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore, the Appellants respectfully request that the rejections of these claims be reversed.



Conclusion

The Applicants believe all the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of an adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Steven M. Hertzberg, Esq. or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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APPENDIX – Pending Claims

1. (Previously Presented) In an interactive information distribution system including information provider equipment and information consumer equipment, a method for use in an information server comprising the steps of:

 providing a primary video-on-demand (VOD) content stream to an information consumer; and in response to a stop or pause command received from said information consumer, performing the steps of:

 halting the providing of said primary VOD content stream to said information consumer; and

 providing a secondary content to said information consumer.

2. (Previously Presented) The method of claim 1, further comprising the step of: restarting the providing of said primary VOD content stream to said information consumer in response to a play or resume command received from said information consumer.

3. (Original) The method of claim 1, wherein said secondary content provided to said information consumer is determined with respect to a demographic profile associated with said information consumer.

4. (Previously Presented) The method of claim 1, wherein said secondary content provided to said information consumer is determined with respect to a segment of said primary VOD content stream being presented to said information consumer contemporaneous to said stop or pause command.

5. (Original) The method of claim 4, wherein said secondary content provided to said information consumer is additionally determined with respect to a demographic profile associated with said information consumer.

6. (Previously Presented) The method of claim 1, further comprising the steps of:

determining, for said halted VOD content stream, the last scene of said primary VOD content stream provided to said information consumer; and

selecting secondary content associated with said determined scene, said determined scene being associated with at least one secondary content stream, said selected secondary content stream being provided to said information consumer in response to said received stop or pause command.

7. (Original) The method of claim 1, wherein said secondary content comprises advertising content.

8. (Original) The method of claim 1, wherein said secondary content provided to said information consumer is provided as an applet comprising a video layer, a control layer and a graphics layer, said video layer providing at least imagery associated with said secondary content, said control layer enabling said graphics layer to be used for selectively emphasizing and de-emphasizing portions of said video layer imagery, said selective emphasizing and de-emphasizing occurring in response to user interaction.

9. (Previously Presented) The method of claim 7, wherein said secondary content provided to said information consumer is determined with respect to one of a demographic profile associated with said information consumer and the segment of said content stream being presented to said information consumer contemporaneous to said stop or pause command.

10. (Previously Presented) In an interactive information distribution system including provider equipment and subscriber equipment, provider apparatus comprising:

- a head end controller for interacting with subscriber equipment;
- a video server, responsive to said head end controller for providing primary video-on-demand (VOD) content streams;
- a transport processor, for communicating VOD content to said subscriber equipment via a distribution network; and

an advertisement manager, responsive to said head end controller for providing secondary content;

 said head end controller, in response to a stop or pause command received from said subscriber equipment, causing said advertisement manager to provide said secondary content to said transport processor for communication to said subscriber equipment.

11. (Original) The apparatus of claim 10, wherein said secondary content provided to a subscriber is determined with respect to the demographic profile associated with said subscriber.

12. (Previously Presented) The apparatus of claim 10, wherein said secondary content provided to said subscriber is determined with respect to temporal segments of said content halted by said subscriber.

13. (Previously Presented) The apparatus of claim 12, wherein said primary VOD content provided to said subscriber is divided into a plurality of temporal portions, each of said temporal portions having associated with it secondary content.

14. (Original) The apparatus of claim 13, wherein said secondary content comprises advertising content.

15. (Original) The apparatus of claim 10, wherein said secondary content provided to said subscriber is determined with respect to one of a demographic profile associated with said subscriber and the segment of said content stream being provided to said subscriber contemporaneous to said stop or pause command.